

The logo consists of the text '6G SNS' in a bold, sans-serif font. The '6G' is in blue, and 'SNS' is in dark blue. A thick vertical dark blue line is positioned to the right of the text.

6G SNS

The logo consists of the text '6G SNS IA' in a bold, sans-serif font. The '6G' is in blue, 'SNS' is in dark blue, and 'IA' is in blue with a stylized 'A' that has a triangular shape at its base.

6G SNS IA

Session 3

ISAC/JCAS Standardization and Impact

Moderator: Alex Kaloxylos (6G-IA)

6G-IA Executive Director

SNS JU /6G-IA & 5G-ACIA Highlights, Lessons learnt and next steps on ISAC/JCAS

10 October 2025

JAN
2023

63 PROJECTS

DEC
2024

1341 Events

294 Organised

1047 Supported or contributed



269 Tests & Trials

184 Proof of concepts & lab

85 Trials & pilots

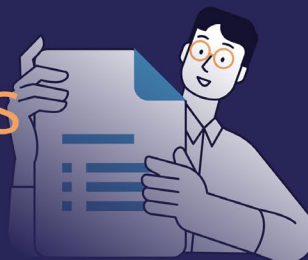


1439 Publications

506 Article in journal

43 White papers

890 Publication in conference proceeding / workshop



1135 Contributions to standards

91 Patent applications



583 Open source

372 Solutions used

129 Contributions submitted

82 Contributions accepted



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**6G SNS
IA**

ISAC/JCAS Standardization and Impact



Presenter: Dr Sebastian Robitzsch, InterDigital Europe Ltd

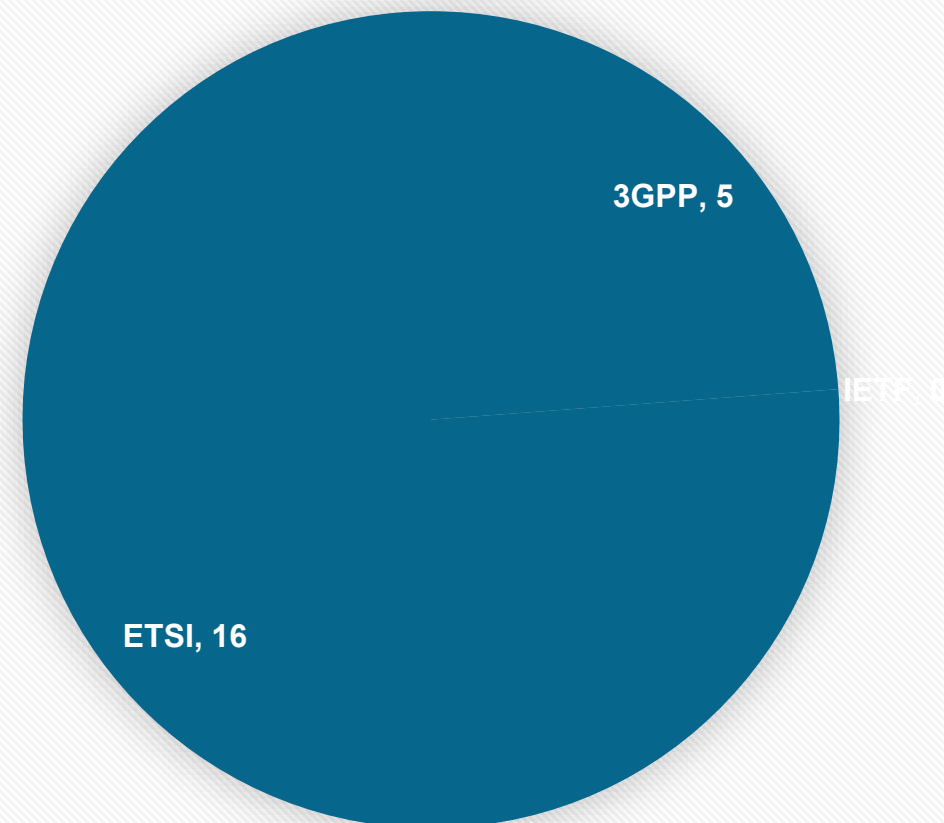
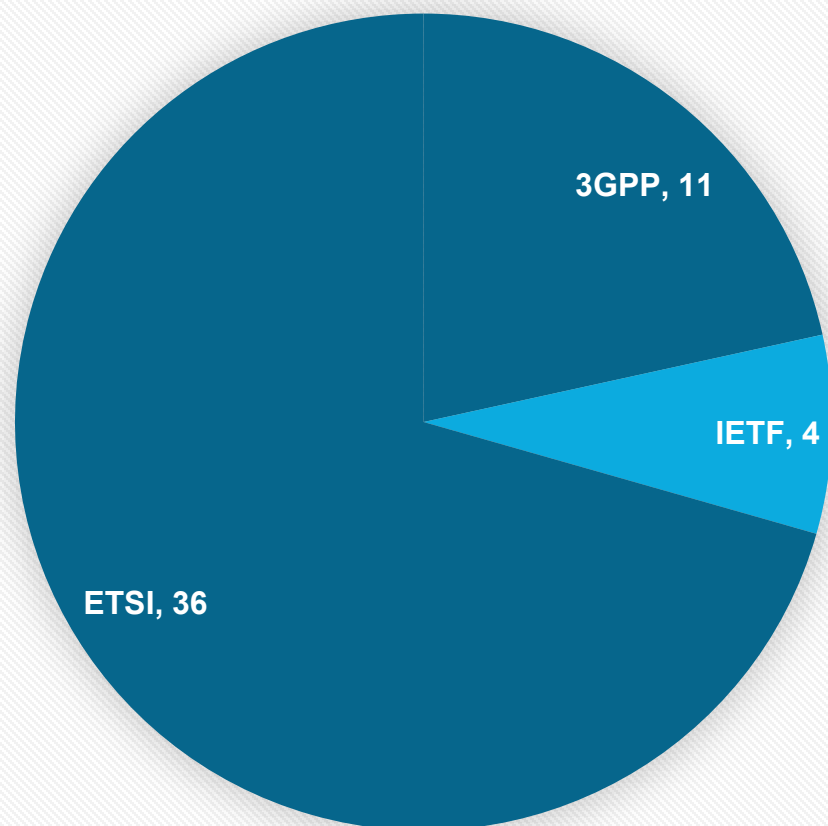
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- Implement EC's **code of practise on standardisation**
- Aim at provide considerations on EC's **GDPR, AI Act, Data Act**
- **Standardisation Advisory Committee** formed to assess developed innovation in project and identify opportunities to contribute to SDOs
 - Members: Apple, InterDigital, Telefonica, Siemens, University Carlos III of Madrid
- Consortium members actively **monitoring and contributing** to
 - ETSI ISG ISAC, TC DATA
 - 3GPP RAN1, RAN2, RAN3, SA1, SA2, SA3, SA6
 - IETF CATS, GREEN, MADINAS, MOQ, OPSA
- Form an **interest group** at the 6G-IA Pre-Standardisation WG on ISAC

Standardisation Timeline



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**6G SNS
IA**

6G-DISAC: Distributed Intelligent Sensing and Communications for 6G



ISAC/JCAS Standardization and Impact

Presenter: Kyriakos Stylianopoulos (NKUA)

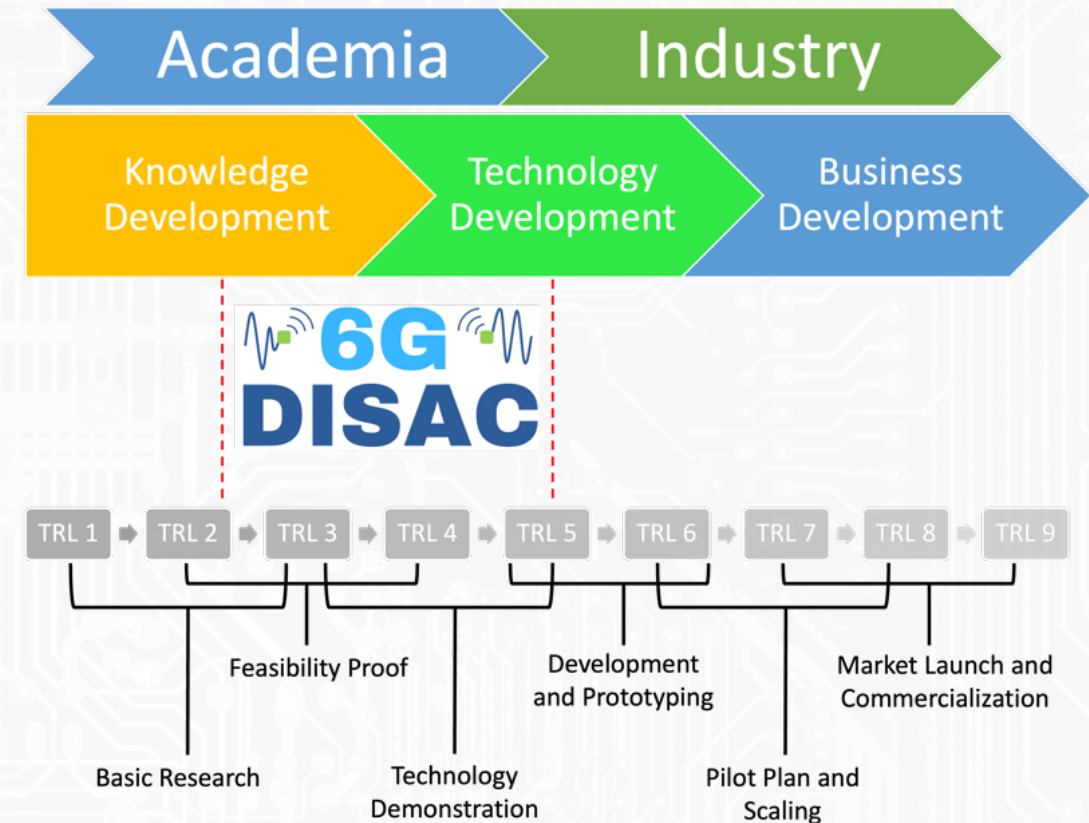
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Role of 6G-DISAC in the standardisation landscape



- Standardisation campaign is central to the Project to ensure:
 - Interoperability and relevance of results
 - Industrial exploitation and stakeholder value
 - Monitor of and alignment with the community
 - Enhance project's visibility
- Participation to key SDOs (monitoring or contributing):
 - ETSI ISGs: ISAC, THz, RIS
 - 3GPP TSGs: RAN, SA
 - NextG, O-RAN, NGMN, etc.



- ETSI ISG ISAC:
 - Sensing data representation
 - Processing of Sensing signals and computation
- ETSI ISG RIS:
 - Device cost and complexity
- 3GPP TSG RAN WG1:
 - ISAC channel modelling
 - Deployment scenarios
- 3GPP TSG SA WG1:
 - Applicability of existing use cases and scenarios to 6G
- 3GPP TSG SA WG2:
 - Architecture requirements and assumptions
 - Function enhancements for sensing
 - Service authorization, parameter configuration, and discovery of entities
 - Collection, transport, result, and exposure of sensing data



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6G SNS IA

ISAC/JCAS Standardization and Impact



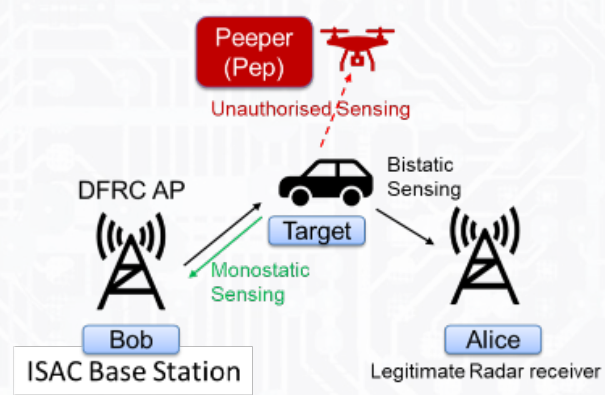
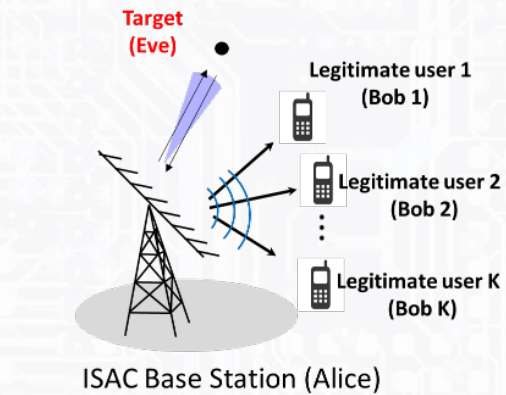
Presenter: Izzat Darwazeh-University College London

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Definition of security issues pertaining to all 18 ISAC scenarios defined by the ETSI ISAC ISG [1]



[1] ETSI, Integrated Sensing And Communications (ISAC); Use Cases and Deployment Scenarios, ETSI GR ISC 001 V1.1.1, Mar. 2025. [Online]. Available: https://www.etsi.org/deliver/etsi_gr/ISC/C/001_099/001/01.01.01_60/gr_ISC_001v010101p.pdf

[2] C. Masouros, J. L. Hernando, "Data confidentiality for ISAC transmission with target eavesdropping", Use-case contribution to the ETSI pre-standardization Industry Specification Group (ISG) on Integrated Sensing and Communications (ISAC), Work Item 4 – Security Privacy and Trustworthy ISAC

[3] C. Masouros, J. L. Hernando, "Sensing security for ISAC transmission with Unauthorized Sensing", Use-case contribution to the ETSI pre-standardization Industry Specification Group (ISG) on Integrated Sensing and Communications (ISAC), Work Item 4 – Security Privacy and Trustworthy ISAC

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ISAC/JCAS Standardization and Impact



6G ✦ REFERENCE

Presenter: Stefan Andersson

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Challenges

- Standardization depends on **research, industry consensus & regulation** (outside scope and control of single projects).
- Small projects like **6G-REFERENCE** have limited direct influence.
- Success relies on engaging with **standardization delegates from partner companies**.

Expected Contribution of 6G-REFERENCE

- Provide **hardware realism** to standardization work.
- Provide **innovation, patents, and realistic HW insights**.
- Demos with **real hardware builds confidence**.

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NETWORKS & SERVICES

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